

1. Record Nr.	UNINA9910799222103321
Autore	Olatunji Ololade
Titolo	Re-envisioning Plastics Role in the Global Society : Perspectives on Food, Urbanization, and Environment // by Ololade Olatunji
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031489457 3031489454
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (252 pages)
Collana	Chemistry and Materials Science Series
Disciplina	620.192
Soggetti	Polymers Materials science Environmental chemistry Environmental policy Refuse and refuse disposal Sustainability Materials Science Environmental Chemistry Environmental Policy Waste Management/Waste Technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1: Global Society and sustainable development -- Chapter 2: A history of Plastics -- Chapter 3: Plastics, food security, and sustainable urbanization -- Chapter 4: Plastics in water safety, management, distribution, and conservation -- Chapter 5: Plastics as a fuel of the future -- Chapter 6: Plastics in sustainable transportation and energy generation -- Chapter 7: Assessing the impact of plastics -- Chapter 8: Plastics in waste management -- Chapter 9: Some nonplastic materials and their environmental impacts) -- Chapter 10: Sustainable Plastics -- Chapter 11: Plastic in Construction towards green buildings and climate resilient cities -- Chapter 12: Plastics in Space exploration -- Chapter 13: Future Outlook, Conclusion and Recommendations.
Sommario/riassunto	This book covers the challenges and opportunities presented by

plastics in the modern era and sheds light on the complex interplay of technology, environment, and socio-economic dynamics. With a thorough exploration of the history, uses, and potential of plastics, the book reviews the impact of plastics beyond single-use plastics, and critiques multiple long-term plastic applications that are significant for food security, water resource management, ecological conservation/restoration, and sustainable urbanization. It also explores frameworks for achieving a more sustainable plastic economy aligned with sustainable development goals. This book comprises 13 chapters, commencing with a critical assessment of plastics in the context of sustainable development and global society. It proceeds with a historical overview of plastics' evolution, showcasing pivotal milestones and innovations in modern industry and daily life. Subsequent chapters delve into diverse topics: the intricate relationships between plastics, food security, and sustainable urbanization; plastics' impact on water safety, management, distribution, and conservation; their potential as an alternative energy source; and their innovative applications in sustainable transportation and energy generation. Emphasis is placed on plastics' role in waste reduction and recycling, as well as the latest sustainable alternatives like biodegradable and recyclable materials. In the book's final sections, readers will learn about green buildings and climate-resilient cities constructed using innovative plastic materials, and plastics' significance in space exploration. The book concludes with a forward-looking perspective on plastics' future, accompanied by recommendations for a more sustainable coexistence between society and these versatile materials. This book is a valuable resource for researchers, policymakers, industry professionals, and concerned citizens seeking to navigate the intricate landscape of plastics, their environmental implications, and their potential for sustainable development.

---